

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: BRUSH CREEK SITE A
 GCG: 5-SC
 SITE ID: 190
 BASIN: OCEAN
 TREATMENT DATE: 2003
 SURVEY DATE: 4/13/2009
 SURVEY CREW: David Jones / Ryan Emig
 USGS MAPS: PORT ORFORD
 ECOREGION: Coastal Uplands
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T33S-R15W-S26SE

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Designated green way area or park
 Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 561 : 5,451
 Secondary channel length (meters) and area (m²): 49 : 75
 VWI average: 6.7 VWI Range: 1 - 12 Average Gradient: 0.8%
 Pieces LWD per 100m: 8.0 Wood Volume (m³) per 100m: 12.5
 Percent pools: 35% Complex pools (LWD pieces>=3): 4 Pools >=1m deep:7
Percent substrate (avg): Silt / organics Sand Gravel Cobble Boulder Bedrock

All units	1	18	72	3	3	4
Pool units	1	19	70	2	4	3
Fast water units	1	12	77	3	3	5

SURVEY COMMENTS:

The Brush Creek Site A habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout consisting of cabled logs and boulders. They also noted observing juvenile coho salmon. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2005. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes increased or stayed approximately the same except pieces of LWD, which decreased.

Survey Date: 4/13/2009

Report Date: 2/16/2010

T33S-R15W-S26SE

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	6.7	VWI Range:	1 - 12

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m²)</u>	<u>Dry Units</u>
Primary	561	5,451	0
Secondary	49	75	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 7.5	Width: 10.2	13.5 (9.8 - 17.8)	16.5 (12.5 - 21)
Depth: 0.66	Height: 0.6	1.2 (1 - 1.3)	1.6 (1.2 - 2.15)

W:D ratio: 17.8

Stream Flow Type: MF

Average Unit Gradient: 0.8%

Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 3.8

Habitat Units/100m (primary channel length): 4.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	MT
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	45	8.0
Volume (m ³):	70	12.5
Key pieces (>=12m x 0.60m):	3	0.5

OREGON DEPT OF FISH AND WILDLIFE
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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	19	3.0	0.80	57	0	5	70	25	0	0	0
POOL-LATERAL SCOUR	11	195	8.7	0.99	1,928	0	1	19	70	2	4	3
PUDDLED UNIT	1	11	0.3	0.05	3	0	0	5	80	5	0	10
RAPID/BEDROCK	1	1	0.3	0.05	0	0	0	0	70	0	0	30
RIFFLE	9	384	8.3	0.38	3,538	0	1	13	78	3	4	2
Total:	23	609	7.5	0.66	5,526	0	Avg: 1	18	72	3	3	4

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m ²)	Percent	Number	(# / 100m ²)
Dammed & BW Pools	1	19	3.0	0.80	57	1.03%	0	0.0
Scour Pools	11	195	8.7	0.99	1,928	34.88%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	9	384	8.3	0.38	3,538	64.02%	0	0.0
Rapids	1	1	0.3	0.05	0	0.01%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	0	0			0	0.00%	0	0.0
Dry	1	11	0.3	0.05	3	0.06%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	12	19.7	21.4
Pools >=1m deep:	7	11.5	12.5
Complex pools (LWD pieces>=3):	4	6.6	7.1
Pool frequency (channel widths/pool):	5.0		
Residual pool depth (avg):	0.61		

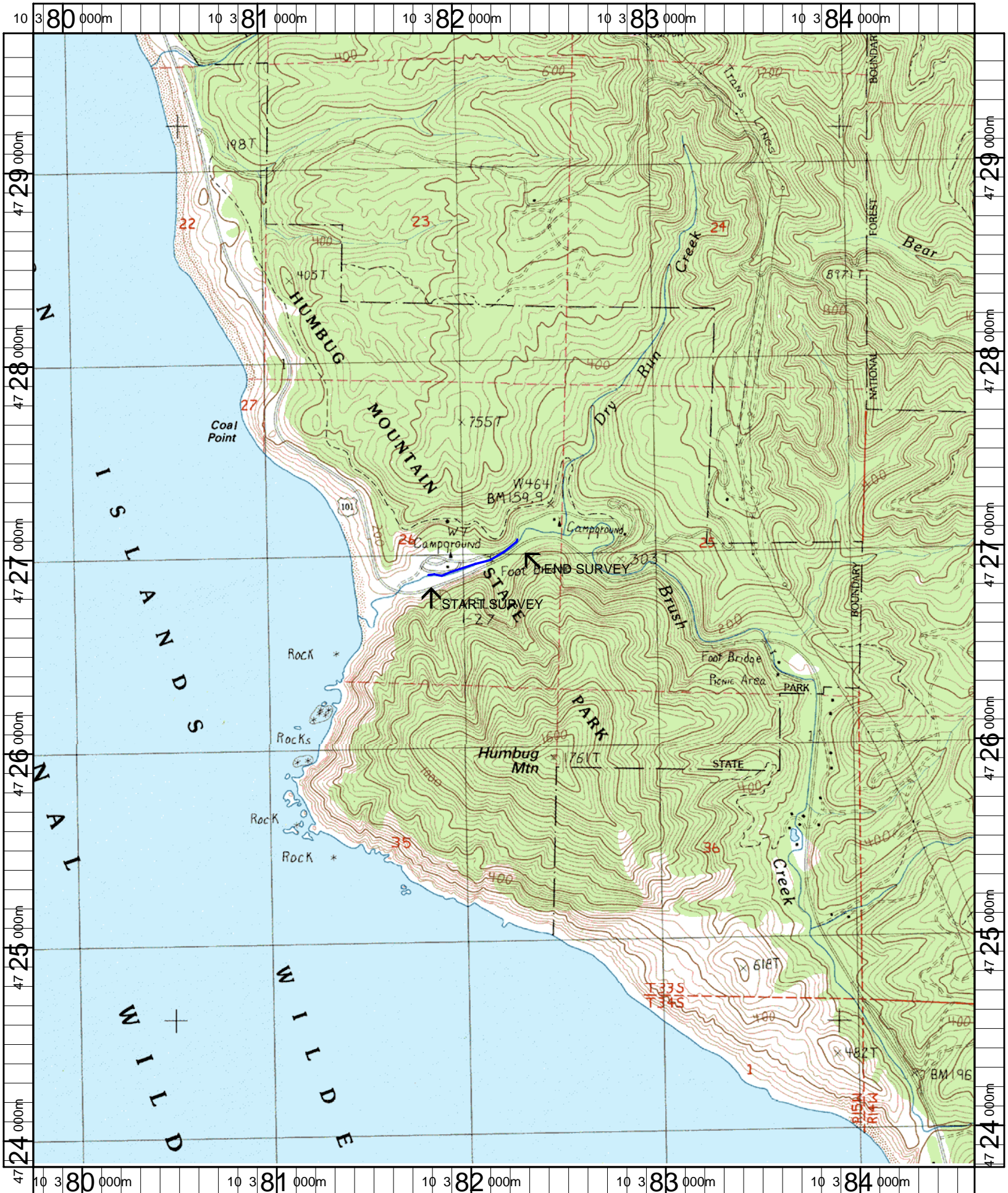
OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 4/13/2009

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 190 STREAM: BRUSH CREEK SITE A

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	LP	00	17	DJ,HS	
1	2	RI	00	55.5	SS/	
1	3	LP	00	75.5	HS	
1	5	LP	00	95.5	SS/	
1	7	RI	01	158.5	HS	
1	14	LP	00	208.5	HS	
1	17	LP	00	374	/SS,CS/	
1	18	RI	00	423	BC,HS,CS/	FOOTBRIDGE, NO TERRACE PRESENT
1	19	LP	00	441.5	HS,CS/	
1	20	RI	00	466.5	HS,CS\	HS WOOD AND CS BOULDERS CABLED TOGETHER
1	21	LP	00	483.5	HS,CS\	
1	22	RI	00	532.5	CS\CS,\SS	HS
1	23	LP	00	560.5	\CS	COHO FRY



Name: PORT ORFORD
 Date: 5/1/2006
 Scale: 1 inch equals 2000 feet

Location: 10 382217 E 4726754 N
 Caption: BRUSH CREEK TRIBUTARY A RESTORATION SITE - OCEAN BASIN

Brush Creek Site A (SC-190) 2009 Winter Habitat Survey Photographs



Upstream view of placed large wood accumulating debris.
Near start of survey.



Upstream view of Brush Creek Site A reach.



Downstream view of roadside bank stabilization.



Downstream view of riparian and stabilization for road.



Upstream view of Brush Creek Site A near end of survey.